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MISSION/BSTZ
BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER	
BURKE, JEFF A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/019,879	ZHANG ET AL.	
	Examiner	Art Unit	
	JEFFREY BURKE	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/27/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 December 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are pending in this application.

Priority

2. Acknowledgement is made of applicant's claim of priority to

PCT/CN2000/000293 filed September 28, 2000.

Drawings

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not

been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "102" has been used to designate both computer and memory.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 100.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 308, 312 and 322.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 16-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. With respect to independent claims 16, 20 and 26, "a machine-readable medium" is recited. The claims fail to place the invention squarely within one statutory class of invention. On page 3 of the instant specification, applicant has provided evidence that applicant intends the "medium" to include signals (*disclosing that a machine readable medium includes propagated signals*). As such, the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not a combination of substances and therefor not a composition of matter. Claims 17-19, 21-25 and 27-30 are rejected for depending from claims 16, 20 and 25, and for failing to resolve their deficiencies.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-10 and 16-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Daelemans et al. (Memory-based Shallow Parsing, published June 2, 1999, hereinafter "Daelemans").

12. With respect to claim 1, Daelemans discloses a method comprising:

generating a number of Information-Gain (IG)Trees based on a memory-learning technique (pg. 2, section: Algorithms and Implementation, *disclosing IGTREE is are decisions trees created with features as tests and ordered according to information gain of the features and is a MBL or memory based learning technique*); and

extracting entity names and relations between entity names based on the IG-Trees (pg. 3, section: Subject/Object detection, *disclosing the detection of subject/object pairs using IG-Trees*).

13. With respect to claim 2, Daelemans discloses the method of claim 1, wherein the number of IG-Trees is generated based on raw data that has been annotated (pg.1, section: Abstract, *disclosing the test set for the MBL-IG-tree algorithm is the wall street journal treebank, i.e. documents from the wall street journal, and see* pg. 3, section: Data Format, *disclosing the sentences were chunked and tagged, i.e. annotated*).

14. With respect to claim 3, Daelemans discloses the method of claim 2, wherein the number of IG-Trees is generated based on a number of features of the annotated data (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

15. With respect to claim 4, Daelemans discloses the method of claim 1, wherein the number of IG-Trees is selected from a group consisting of a person-name IG-Tree, an entity-name IG-Tree, a noun phrase IG-Tree and a relation IG-Tree (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, section: data format, *disclosing the features are noun phrase and verb phrase, i.e. trees for nouns and trees for relations*).

16. With respect to claim 5, Daelemans discloses a method comprising:

receiving annotated data (pg. 2, section: Chunking, *disclosing tagging each word in a sentence so as to indicate whether the word is an outside or inside chunk, i.e. annotating data*);

parsing the annotated data (pg. 2, section Experiments, *disclosing partitioning the WSJ Treebank, i.e. parsing the annotated data*);

extracting a number of training sets from the parsed annotated data (pg. 2, section Experiments, *disclosing each partition was selected as a test set and the algorithms i.e. the IGTRee were trained on the remaining partitions*); and

generating a number Of Information Gain (IG)-Trees from the number of training sets (pg. 2, section Experiments, *disclosing each partition was selected as a test set and the algorithms i.e. the IGTRee were trained on the remaining partitions and see* pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees*).

17. With respect to claim 6, Daelemans discloses the method of claim 5, further comprising segmenting the annotated data (pg. 2, section: Chunking, *disclosing chunking and tagging the data, i.e. tagging is annotating and chunking is segmenting the data*).

18. With respect to claim 7, Daelemans discloses the method of claim 5, wherein the number of IG-Trees is selected from a group consisting of a person-name IG-Tree, an entity-name IG-Tree, a noun phrase IG-Tree and a relation IG-Tree (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, section: data format, *disclosing the features are noun phrase and verb phrase, i.e. trees for nouns and trees for relations*).

19. With respect to claim 8, Daelemans discloses the method of claim 7, further comprising extracting entity names from an input document based on the number of IG-Trees (pg. 2-3, *disclosing extracting and tagging Pierre Vinken as a noun phrase, i.e. extracting an entity name from an input sentence*).

20. With respect to claim 9, Daelemans discloses the method of claim 5, wherein the person-name (IG)-Tree is generating using memory-based learning (pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees based on Memory-based learning*).

21. With respect to claim 10, Daelemans the method of claim 5, wherein the number of IG-Trees is generated based on a number of features of the annotated data (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

22. With respect to claim 16, Daelemans discloses a machine-readable medium that provides instructions (Abstract and pg. 1-8, *disclosing the memory-based learning and IGtree algorithm is implemented in a computer*), which when executed by a machine, cause said machine to perform operations comprising:

generating a number of Information-Gain (IG)Trees based on a memory-learning technique (pg. 2, section: Algorithms and Implementation, *disclosing IGTREE is are decisions trees created with features as tests and ordered according to information gain of the features and is a MBL or memory based learning technique*); and

extracting entity names and relations between entity names based on the IG-Trees (pg. 3, section: Subject/Object detection, *disclosing the detection of subject/object pairs using IG-Trees*).

23. With respect to claim 17, Daelemans discloses the machine-readable medium of claim 16, wherein the number of IG-Trees is generated based on raw data that has been annotated (pg.1, section: Abstract, *disclosing the test set for the MBL-IG-tree algorithm is the wall street journal treebank, i.e. documents from the wall street journal,*

and see pg. 3, section: Data Format, *disclosing the sentences were chunked and tagged, i.e. annotated*).

24. With respect to claim 18, Daelemans discloses the machine-readable medium of claim 17, wherein the number of IG-Trees is generated based on a number of features of the annotated data (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

25. With respect to claim 19, Daelemans discloses the machine-readable medium of claim 16, wherein the number of IG-Trees is selected from a group consisting of a person-name IG-Tree, an entity-name IG-Tree, a noun phrase IG-Tree and a relation IG-Tree (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, section: data format, *disclosing the features are noun phrase and verb phrase, i.e. trees for nouns and trees for relations*).

26. With respect to claim 20, Daelemans discloses a machine-readable medium that provides instructions (Abstract and pg. 1-8, *disclosing the memory-based learning and IGtree algorithm is implemented in a computer*), which when executed by a machine, cause said machine to perform operations comprising:

receiving annotated data (pg. 2, section: Chunking, *disclosing tagging each word in a sentence so as to indicate whether the word is an outside or inside chunk, i.e. annotating data*);

parsing the annotated data (pg. 2, section Experiments, *disclosing partitioning the WSJ Treebank, i.e. parsing the annotated data*);

extracting a number of training sets from the parsed annotated data (pg. 2, section Experiments, *disclosing each partition was selected as a test set and the algorithms i.e. the IGTRee were trained on the remaining partitions*); and

generating a number Of Information Gain (IG)-Trees from the number of training sets (pg. 2, section Experiments, *disclosing each partition was selected as a test set and the algorithms i.e. the IGTRee were trained on the remaining partitions and see* pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees*).

27. With respect to claim 21, Daelemans discloses the machine-readable medium of claim 20, further comprising segmenting the annotated data (pg. 2, section: Chunking, *disclosing chunking and tagging the data, i.e. tagging is annotating and chunking is segmenting the data*).

28. With respect to claim 22, Daelemans discloses the machine-readable medium of claim 20, wherein the number of IG-Trees is selected from a group consisting of a person-name IG-Tree, an entity-name IG-Tree, a noun phrase IG-Tree and a relation IG-Tree (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created*

based on features as test, and see pg. 3, section: data format, *disclosing the features are noun phrase and verb phrase, i.e. trees for nouns and trees for relations*).

29. With respect to claim 23, Daelemans discloses the machine-readable medium of claim 22, further comprising extracting entity names from an input document based on the number of IG-Trees (pg. 2-3, *disclosing extracting and tagging Pierre Vinken as a noun phrase, i.e. extracting an entity name from an input sentence*).

30. With respect to claim 24, Daelemans discloses the machine-readable medium of claim 20, wherein the person-name (IG)-Tree is generating using memory-based learning (pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees based on Memory-based learning*).

31. With respect to claim 25, Daelemans discloses the machine-readable medium of claim 20, wherein the number of IG-Trees is generated based on a number of features of the annotated data (pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

Claim Rejections - 35 USC § 103

32. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

33. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

34. Claims 11-15 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daelemans, in view of Kiuchi (US Patent No. 5,644,740, granted July 1, 1997, herein "Kiuchi").

35. With respect to claim 11, Daelemans discloses a method comprising:

generating a IGTrees from annotated data (pg. 2, section: Algorithms and Implementation, *disclosing IGTREE is are decisions trees created with features as tests and ordered according to information gain of the features and is a MBL or memory based learning technique*);

tagging and partial parsing of an input document (pg. 2, section Experiments, *disclosing partitioning the WSJ Treebank, i.e. parsing the annotated data*);

extracting names of persons within the input document using the person-name IG-tree (pg. 2-3, *disclosing extracting and tagging Pierre Vinken as a noun phrase, i.e. extracting an entity name from an input sentence*);

extracting entity names that are not names of persons and organizations within the input document (pg. 2-3, section: Chunking, *disclosing extraction of various NP and VP phrases from an input sentence, i.e. entity names that are not names of persons and organizations*); and

extracting relations between the identified entity names using the relation-IG-Tree (pg. 3, section: Subject/Object detection, *disclosing the detection of subject/object pairs using IG-Trees*). Daelemans does not explicitly disclose generating a person-name Information Gain (IG)-Tree and a relation IG-Tree from annotated data; and extracting names of organizations within the input document. Daelemans does discloses the generation of IG-Trees and also a relation IG-Tree (pg. 3, section: Subject/Object Detection, *disclosing mapping the subject/object to verbs based on a relation, this mapping takes place through the use of the above mentioned IG-tree algorithm, therefore in order to match a relation there must be a tree to follow*). Kiuchi discloses person-names and extracting names of organizations within the input document (col. 1, lines 61-63, *disclosing the person concept including a person name "Tanaka Yoko" and see* Fig. 2, *disclosing the extraction of organizational names from the concept network*).

Daelemans and Kiuchi are analogous art because they are related to the same field of endeavor, node classification. It would have been obvious to one of ordinary skill in the art, at the time of the endeavor, to modify the method of Daelemans to be used with the names and organizational data of Kiuchi, to allow relationships between names and organization to be mined. The suggestion/motivation to combine is that IG-tree mining are more efficient for mining data (Daelemans, pg. 6, section: general).

36. With respect to claim 12, the combination of Daelemans and Kiuchi disclose the method of claim 11, further comprising: extracting noun phrases within the input document using a noun-phrase (IG)-Tree generated from the annotated raw data (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*); and classifying the noun phrases extracted using an entity name IG-tree (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*).

37. With respect to claim 13, the combination of Daelemans and Kiuchi disclose the method of claim 11, further comprising partial parsing of the input document based on the entity names and the noun phrases (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*).

38. With respect to claim 14, the combination of Daelemans and Kiuchi disclose the method of claim 11, wherein the person-name (IG)-Tree is generating using memory-based learning (Daelemans, pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees based on Memory-based learning*).

39. With respect to claim 15, the combination of Daelemans and Kiuchi disclose the method of claim 11, wherein the number of IG-Trees is generated based on a number of features of the annotated data (Daelemans, pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

40. With respect to claim 26, Daelemans discloses a machine-readable medium that provides instructions (Abstract and pg. 1-8, *disclosing the memory-based learning and IGtree algorithm is implemented in a computer*), which when executed by a machine, cause said machine to perform operations comprising:
generating a IGTrees from annotated data (pg. 2, section: Algorithms and Implementation, *disclosing IGTREE is are decisions trees created with features as tests and ordered according to information gain of the features and is a MBL or memory based learning technique*);

tagging and partial parsing of an input document (pg. 2, section Experiments, *disclosing partitioning the WSJ Treebank, i.e. parsing the annotated data*);

extracting names of persons within the input document using the person-name IG-tree (pg. 2-3, *disclosing extracting and tagging Pierre Vinken as a noun phrase, i.e. extracting an entity name from an input sentence*);

extracting entity names that are not names of persons and organizations within the input document (pg. 2-3, section: Chunking, *disclosing extraction of various NP and VP phrases from an input sentence, i.e. entity names that are not names of persons and organizations*); and

extracting relations between the identified entity names using the relation-IG-Tree (pg. 3, section: Subject/Object detection, *disclosing the detection of subject/object pairs using IG-Trees*). Daelemans does not explicitly disclose generating a person-name Information Gain (IG)-Tree and a relation IG-Tree from annotated data; and extracting names of organizations within the input document. Daelemans does discloses the generation of IG-Trees and also a relation IG-Tree (pg. 3, section: Subject/Object Detection, *disclosing mapping the subject/object to verbs based on a relation, this mapping takes place through the use of the above mentioned IG-tree algorithm, therefore in order to match a relation there must be a tree to follow*). Kiuchi discloses person-names and extracting names of organizations within the input document (col. 1, lines 61-63, *disclosing the person concept including a person name "Tanaka Yoko" and see* Fig. 2, *disclosing the extraction of organizational names from the concept network*).

Daelemans and Kiuchi are analogous art because they are related to the same field of endeavor, node classification. It would have been obvious to one of ordinary skill

in the art, at the time of the endeavor, to modify the medium of Daelemans to be used with the names and organizational data of Kiuchi, to allow relationships between names and organization to be mined. The suggestion/motivation to combine is that IG-tree mining are more efficient for mining data (Daelemans, pg. 6, section: general).

41. With respect to claim 27, the combination of Daelemans and Kiuchi disclose the machine-readable medium of claim 26, further comprising: extracting noun phrases within the input document using a noun-phrase (IG)-Tree generated from the annotated raw data (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*); and classifying the noun phrases extracted using an entity name IG-tree (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*).

42. With respect to claim 28, the combination of Daelemans and Kiuchi disclose the machine-readable medium of claim 26, further comprising partial parsing of the input document based on the entity names and the noun phrases (Daelemans, pg. 3, section: Subject/Object Detection, *disclosing classifications of pairs of words, i.e. nouns and verbs which is done via the IG-tree algorithm*).

43. With respect to claim 29, the combination of Daelemans and Kiuchi disclose the machine-readable medium of claim 26, wherein the person-name (IG)-Tree is

generating using memory-based learning (Daelemans, pg. 2, section: Algorithms and Implementation, *disclosing the creation of IGTrees based on Memory-based learning*).

44. With respect to claim 30, the combination of Daelemans and Kiuchi disclose the machine-readable medium of claim 26, wherein the number of IG-Trees is generated based on a number of features of the annotated data (Daelemans, pg. 2, section: Algorithm and Implementation, *disclosing the IG-tree is created based on features as test, and see* pg. 3, *disclosing the features are the word form and the POS tag, i.e. the features of the annotated data*).

Conclusion

45. The prior art made of record in the PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY BURKE whose telephone number is (571)270-3844. The examiner can normally be reached on M-F: 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James K. Trujillo can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEFFREY BURKE/
Examiner, Art Unit 2159